

Amendments to the Claims:

Please amend the claims as follows:

22. (Currently Amended) A method of measuring the time interval for transmission of a test signal ~~in performing delay measurements of~~ an integrated circuit having a scan chain for boundary scan testing, where the method comprises the steps of:

~~entering a delay measurement mode;~~

in a first time period applying a test data signal to a test data input for boundary scan testing; and

measuring the time interval for transmission of the test signal ~~to performing a delay measurement at~~ a separate delay chain output port which is the output of a local combinational path from the end of the scan chain and which is additional to the test data output port for boundary scan testing; the measurement of the transmission time interval being to determine the performance of the integrated circuit; at other times the combinational local path ~~does not interfere~~ ing with the operation of the scan chain due to ~~the delay chain output port being kept in a tristate condition or by pulling~~ maintaining the test data input ~~to~~ at operating voltage.

23. (Previously Added) The method of claim 22 comprising the step of: performing the delay measurement at the test data output port for boundary scan testing.

24. (Currently Amended) The method of claim 22 in which the scan cells forming the scan chain have a storage layer between a scan input port and an output port, an additional combinational path between the scan input port and the scan output port of a respective scan cell, and a multiplexer, connected to the output of the additional combinational path and the output of the storage layer, to provide the scan output port signal; and the steps of:

applying a test data signal to a test data input also consists in

connecting the scan input port of a first scan cell to the test data input port for boundary scan testing;

connecting the scan output port of a scan cell forming the end of the scan chain via circuitry to the test data output port for boundary scan testing; and

connecting the output port of a boundary scan cell forming the end of the scan chain to the separate delay chain output port (~~DCO~~) via a test data output path.

25. (Currently Amended) The method of claim 24 wherein the step of applying a test data signal also comprises the step of:

providing of the ~~at least one~~ boundary scan cell according to the IEEE Standard 1149.1.

26. (Currently Amended) The method of claim 24 wherein the step of measuring the time interval for transmission~~performing the delay measurement~~ comprises the step of:

implementing a local path between the scan input port (SI) and the scan output port (SO)~~said respective two scan ports~~ by bypassing the respective storage layer of a boundary scan cell so as to provide the additional combinational path.

27. (Previously Added) The method of claim 24 wherein the combinational path is connected to the scan output port via a multiplexer controlled by the shift signal from a test access port controller.

28. (Previously Added) The method of claim 24 wherein the additional combinational path is defined as false path during synthesizing of the scan chain.